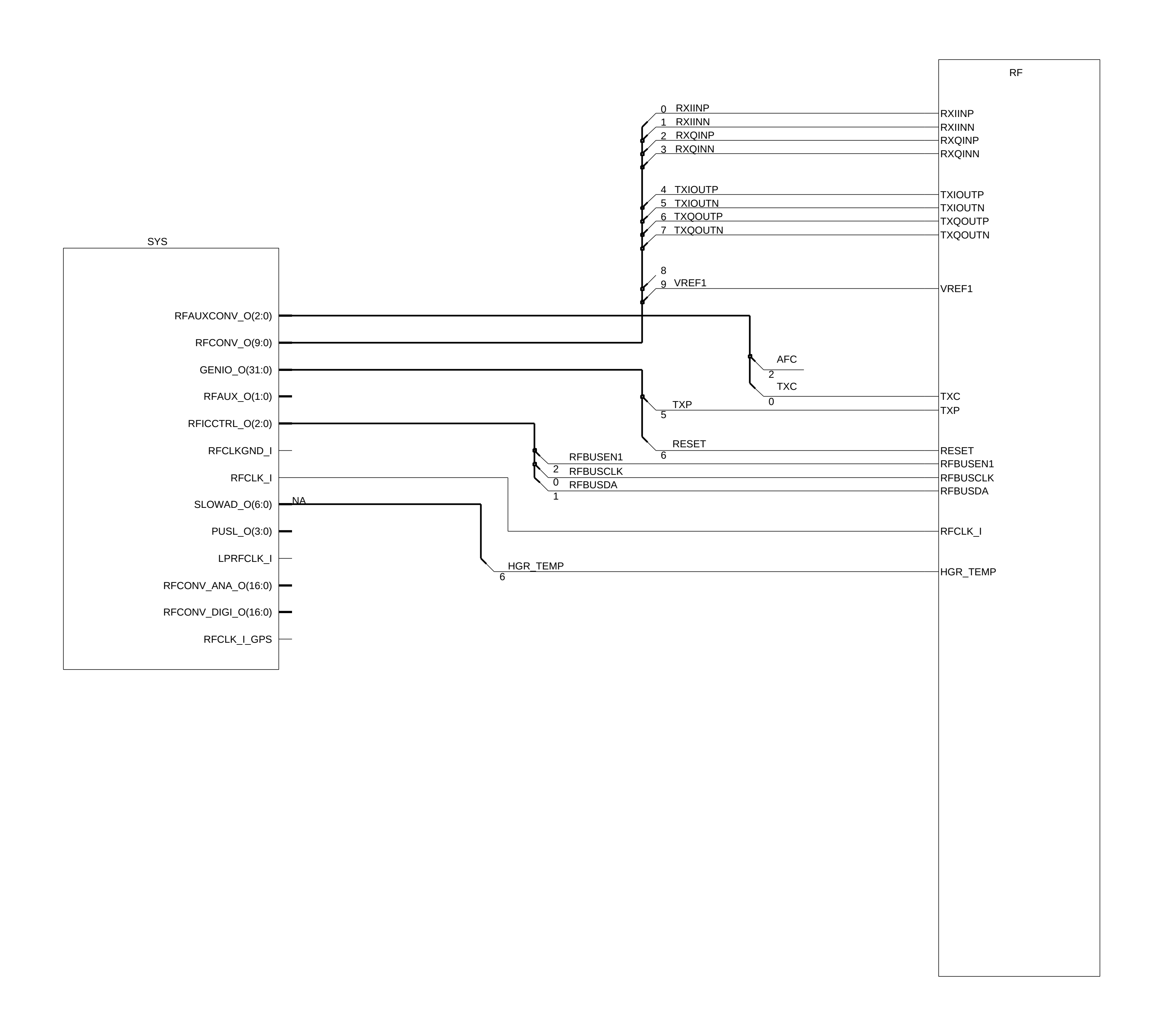
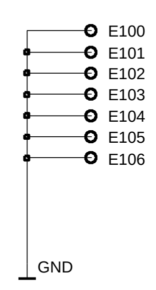
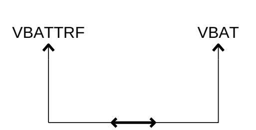
Top Level Schematic

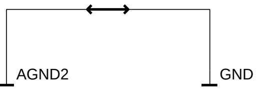


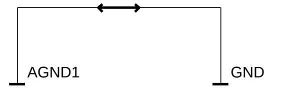
Top Sheet (2)

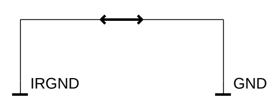




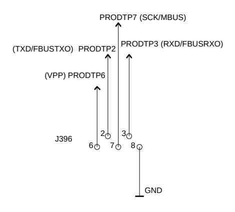
DCT4 Common Baseband Schematic (Top level 2)

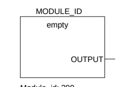






5-pin Production Test Pattern





Plug-in SIM Interface

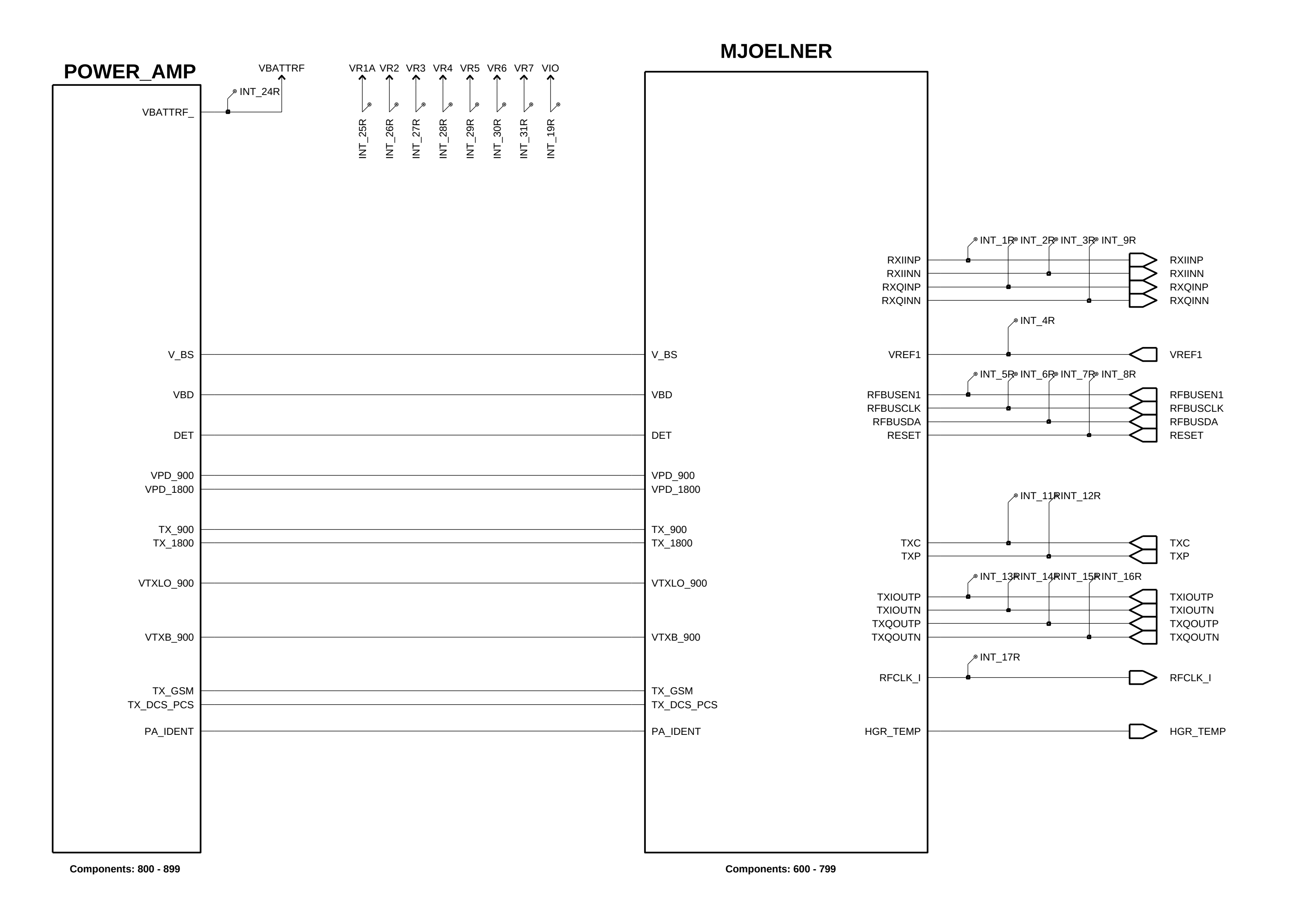
SIMIF(3:0)
0 SIMIODAO
2 SIMRST
1 SIMCLKO
3
R386
1/2 47R
R386
2/2 47R
R387
1/2 47R
X386
C707-10M006-036-2
1
2
3
6
5
4
C386
27p
C388
100p
C387
27p
GND
GND
VSIM
C389
1u0
C390
100n
GND

GENIO(31:0)

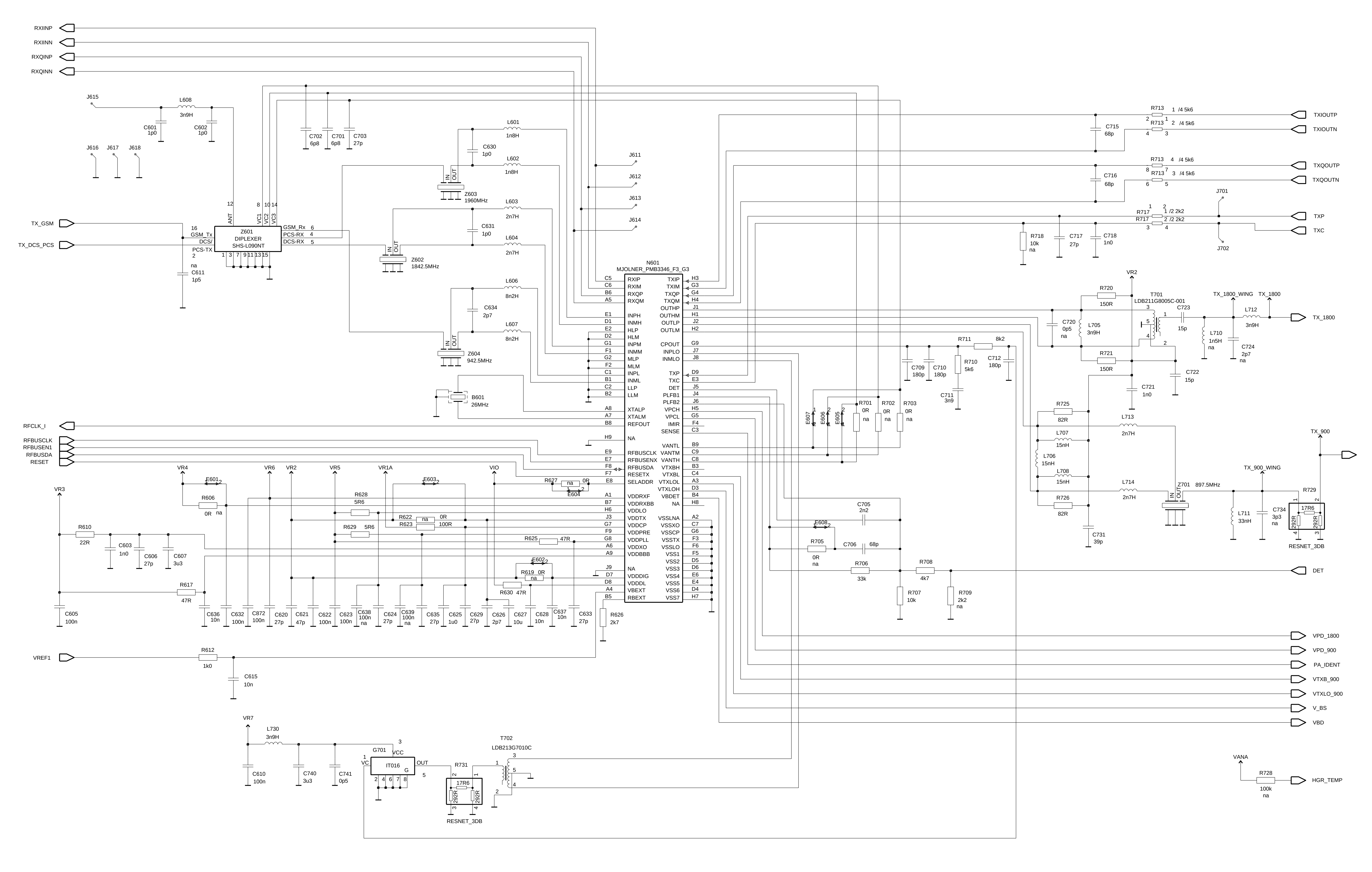
SIM2MMCIF(3:0)

G_SIM(7:0)

RF Top Sheet Schematic

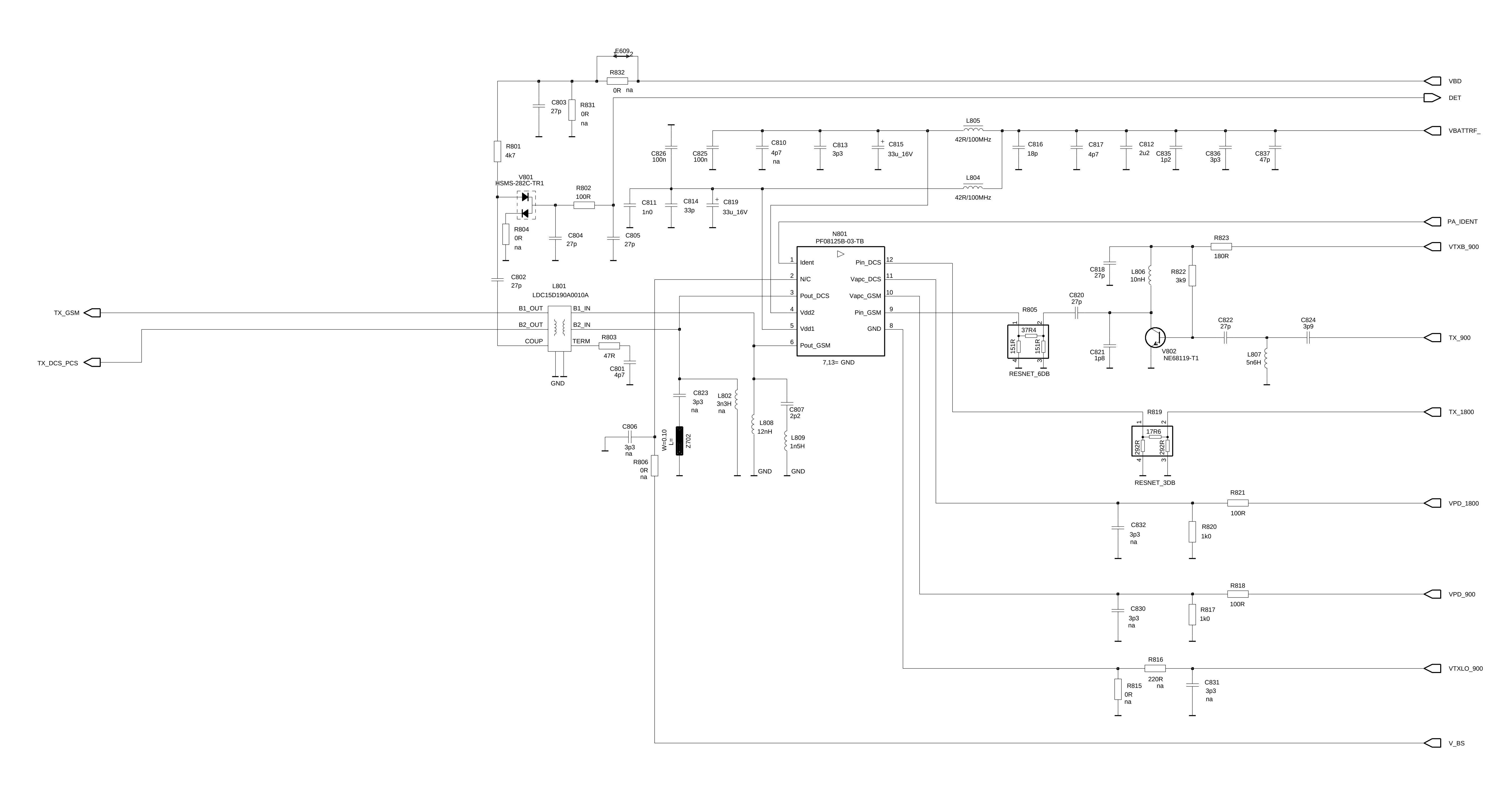


Mjoelner

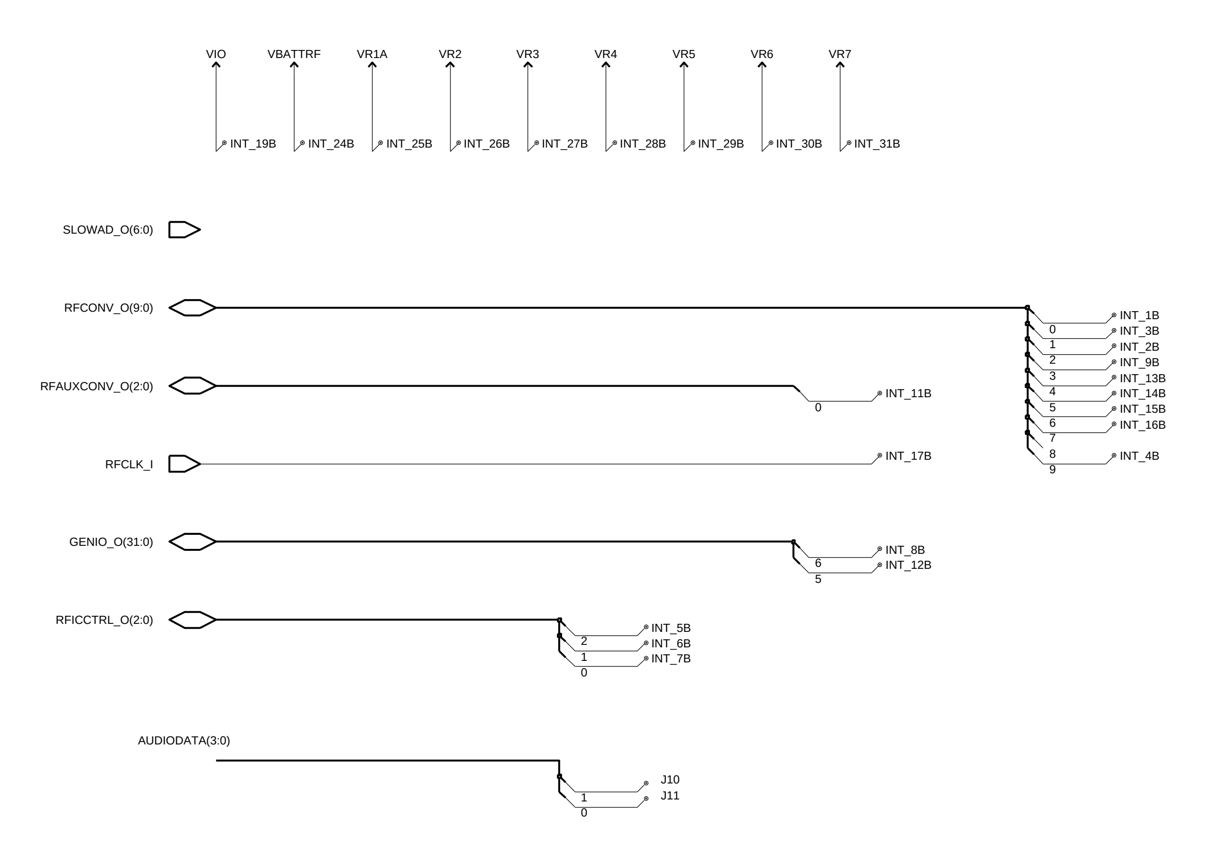


na = not assembled

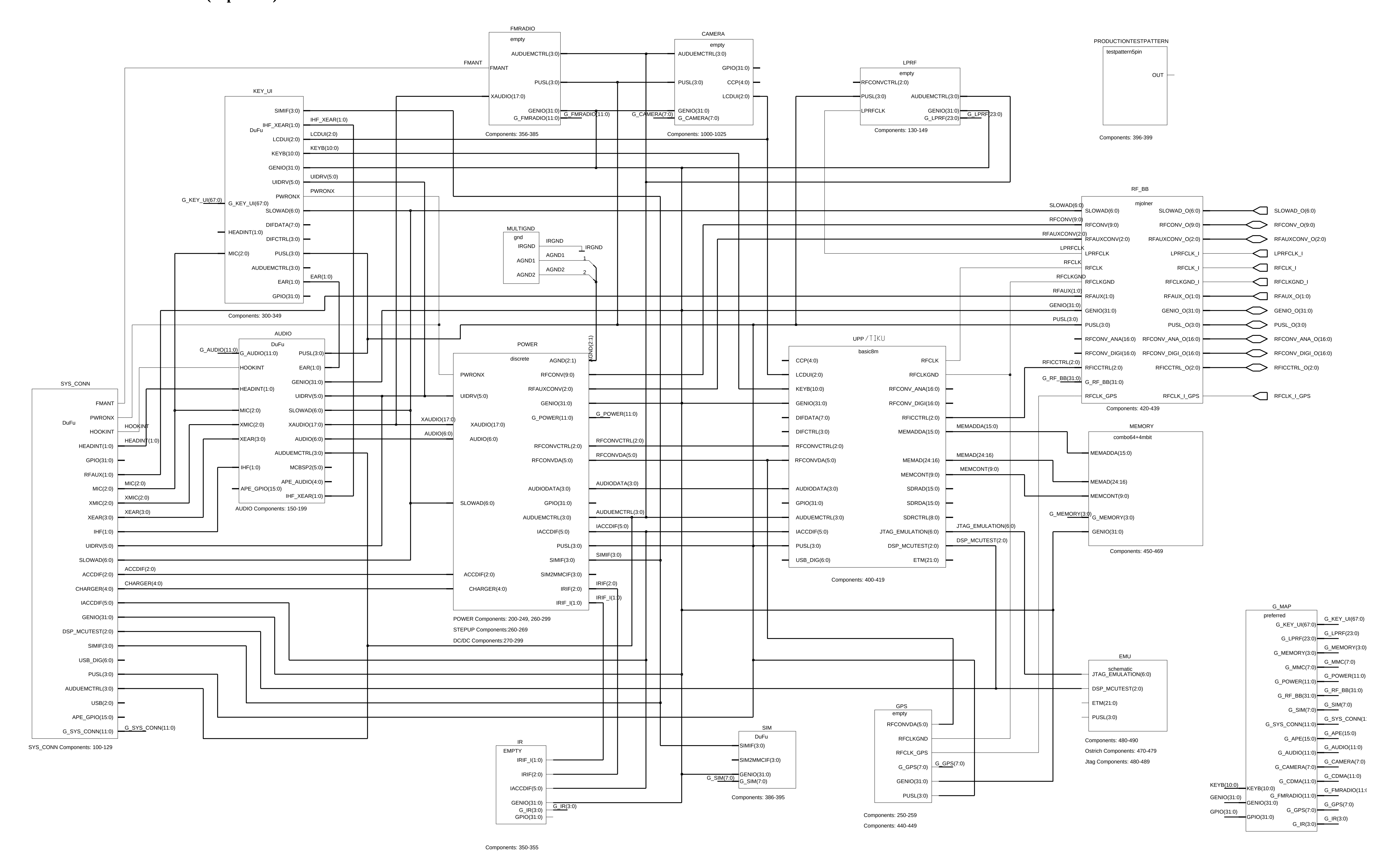
Power Amplifier



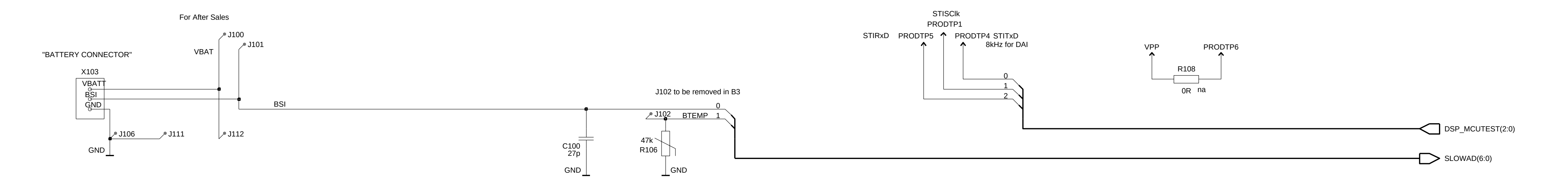
BB-RF Interface Components



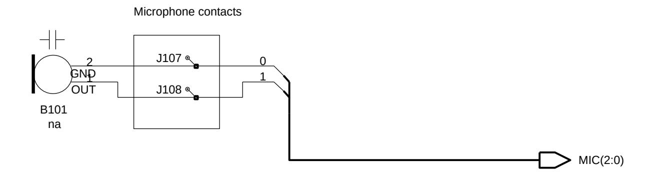
DCT4 Common BB Schematic (Top Level)



RH-6 System Connector

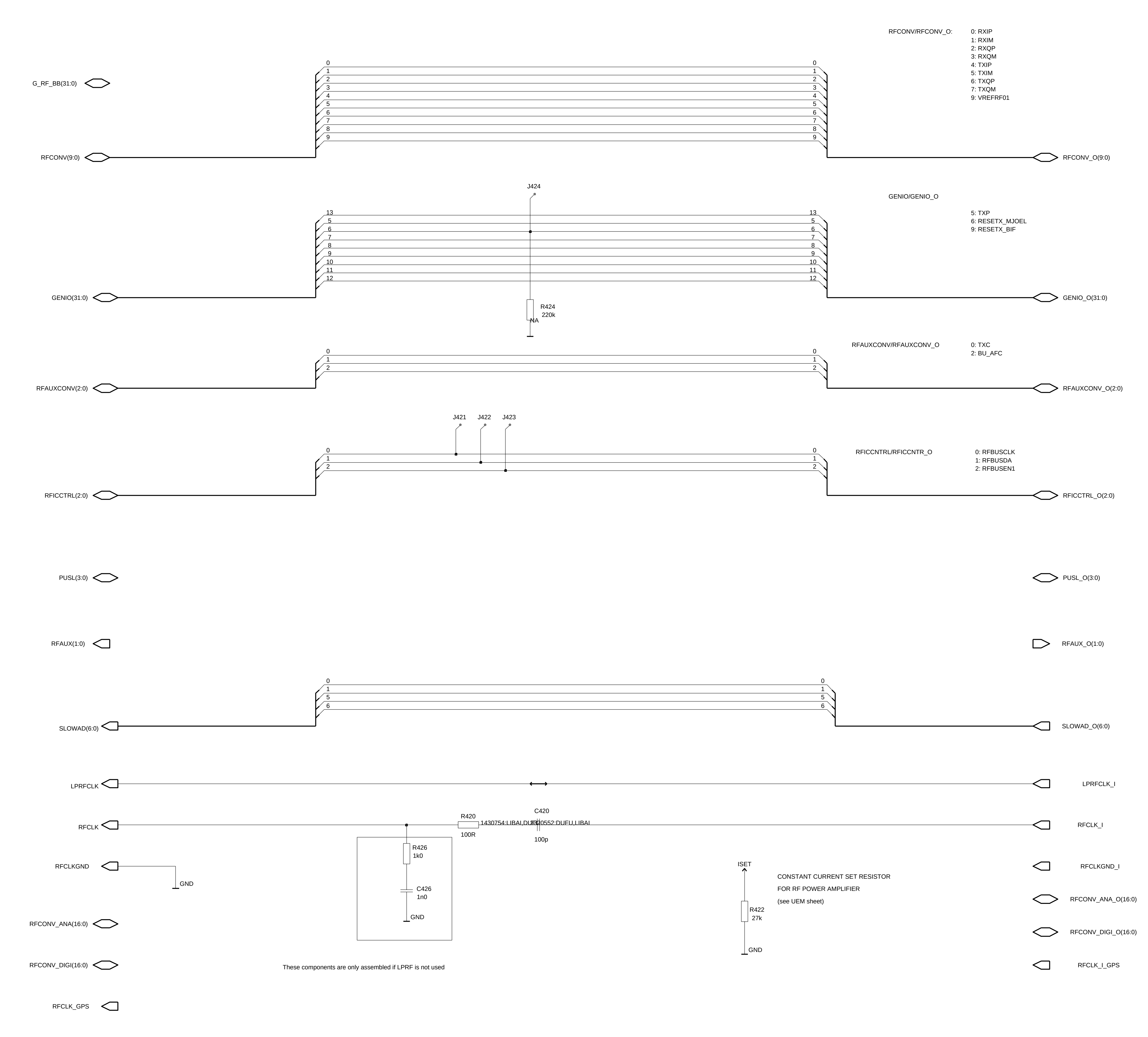


TOMAHAWK
BOTTOM CONNECTOR
Tomahawk
Charger connector
X102 na
VCHAR
GND
J109
J110
F100
1.5A
L100
42R/100MHz
V100
1PMT16AT3
C106
1n0
C110
22p
CHARGER(4:0)
PUSL(3:0)
AUDUEMCTRL(3:0)
ACCESSORY REGULATOR
VBAT
N100
LP3985IM5X
-2.8
VOUT
BYP
VIN
VEN
C101
1u0
C102
1u0
C113
10n
R107
100k
USB_DIG(6:0)
GENIO(31:0)
Tomahawk
System connector
X101
ACI
Vout
Fbus RX
Fbus TX
L106 600R/100MHz
L107 600R/100MHz
VFLASH1
ACI pull up
R109
100k
R102
R101
R100
R103
IP4043CX5
C105
22p
C104
22p
R104
220k
C103
270p
PRODTP2
PRODTP3
PRODTP7
HEADINT(1:0)
ACCDIF(2:0)
APE_GPIO(15:0)
USB(2:0)
FMANT
PWRONX
HOOKINT
IHF(1:0)
RFAUX(1:0)
UIDRV(5:0)
IACCDIF(5:0)
GPIO(31:0)
SIMIF(3:0)
G_SYS_CONN(11:0)
XMIC_P
XMIC_N
XMIC P
XMIC N
L102
EXC24CB102U
XEAR_P
XEAR_N
XEAR P
XEAR N
L103
EXC24CB102U
XMIC(2:0)
XEAR(3:0)
C107 10n
C108 10n
C109 10n
C111 10n
R105
GND

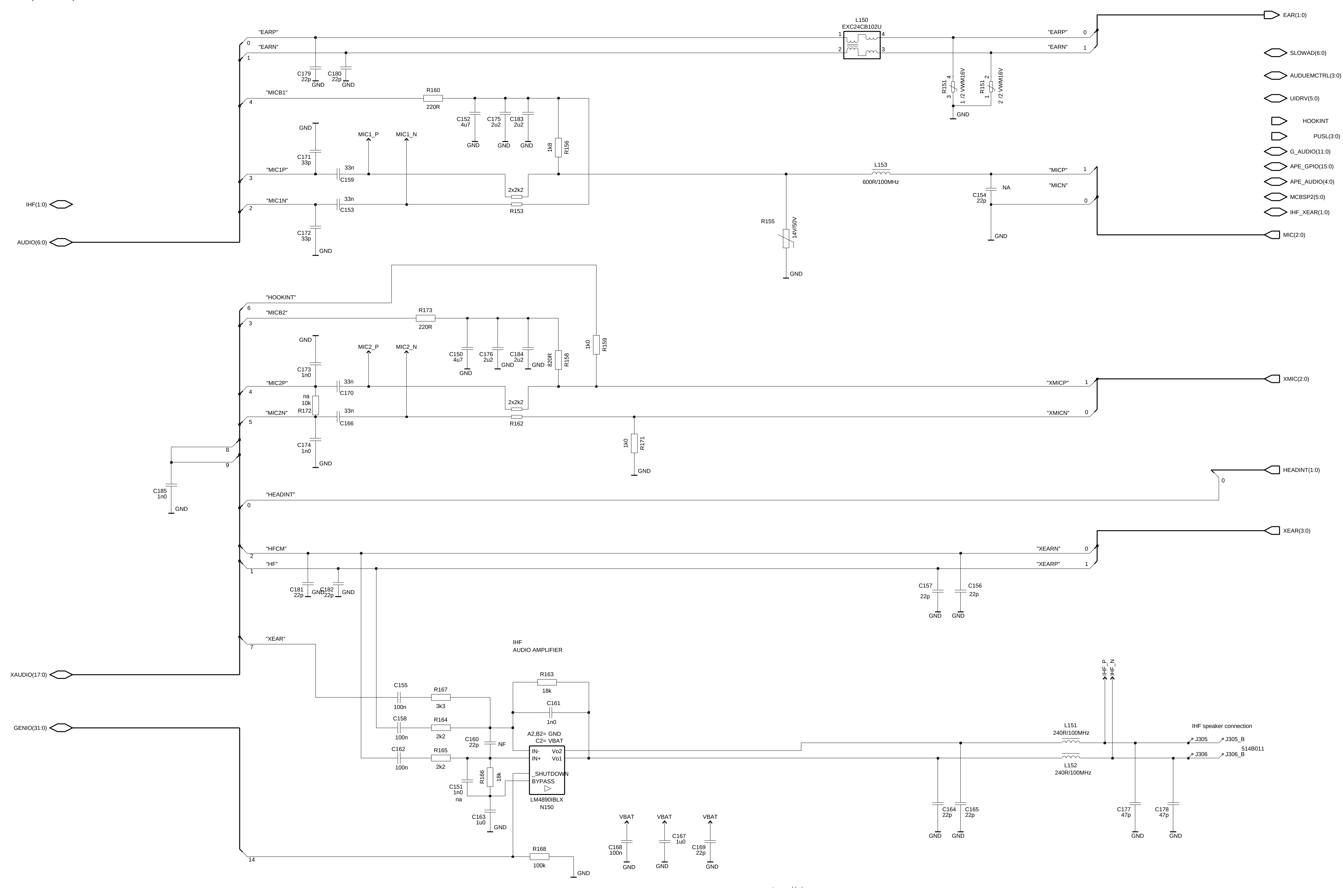


Name RH-6 System Connector Appr

GSM RF-BB Interface



RH-6 Audio



Varistor arrays have reliability issues
L150
EXC24CB102U
"EARP"
"EARN"
"MICB1"
"MIC1P"
"MIC1N"
R160
220R
MIC1_P
MIC1_N
R153
R156
L153
600R/100MHz
R155
14V/50V
"MICP"
"MICN"
C154
22p
NA
EAR(1:0)
SLOWAD(6:0)
AUDUEMCTRL(3:0)
UIDRV(5:0)
HOOKINT
PUSL(3:0)
G_AUDIO(11:0)
APE_GPIO(15:0)
APE_AUDIO(4:0)
MCBSP2(5:0)
IHF_XEAR(1:0)
MIC(2:0)
IHF(1:0)
AUDIO(6:0)
"HOOKINT"
"MICB2"
R173
220R
MIC2_P
MIC2_N
"MIC2P"
"MIC2N"
R162
R158
820R
R159
1k0
R171
"XMICP"
"XMICN"
XMIC(2:0)
HEADINT(1:0)
"HEADINT"
XEAR(3:0)
"HFCM"
"HF"
"XEARN"
"XEARP"
"XEAR"
XAUDIO(17:0)
GENIO(31:0)
IHF
AUDIO AMPLIFIER
LM4890IBLX
N150
R163
18k
C161
1n0
R168
100k
L151
240R/100MHz
L152
240R/100MHz
IHF speaker connection
J305
J305_B
J306
J306_B
514B011
IHF_P
IHF_N
VBAT
GND

MultiGND Symbol Bypass

GND IRGND

GND AGND1

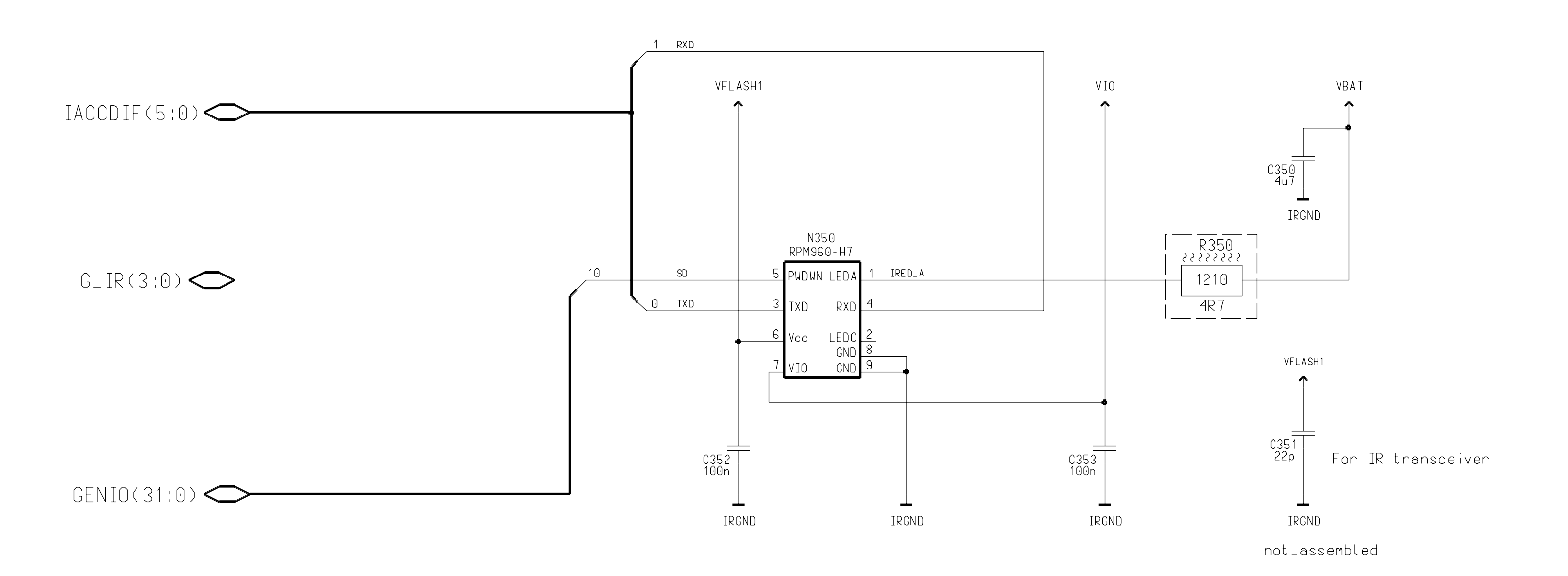
GND AGND2

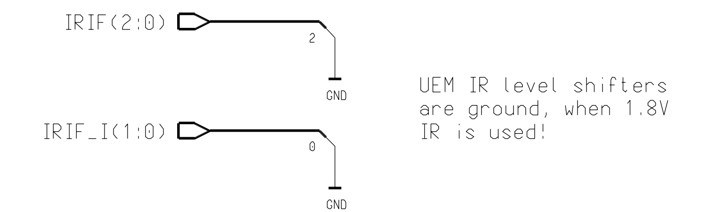
GENIO and GPIO Connection Block

GENIO(31:0)
GPIO(31:0)
KEYB(10:0)

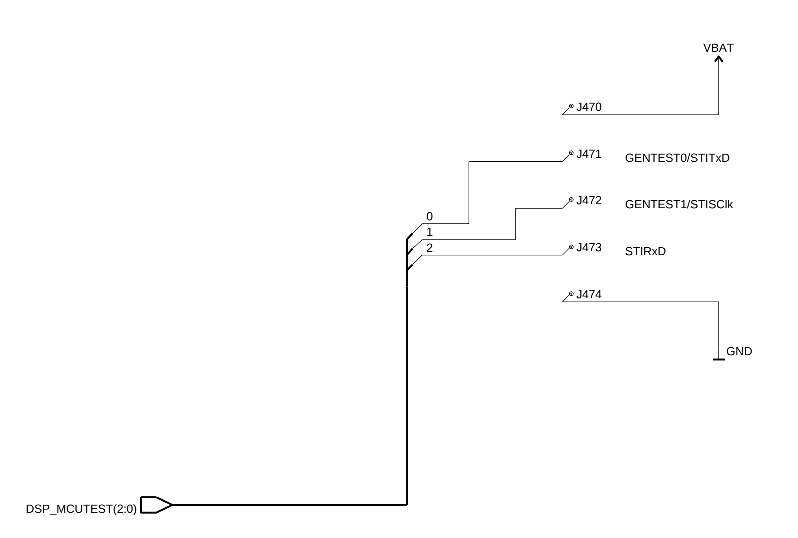
G_APE(15:0)
G_AUDIO(11:0)
G_CAMERA(7:0)
G_CDMA(11:0)
G_FMRADIO(11:0)
G_GPS(7:0)
G_IR(3:0)
G_KEY_UI(67:0)
G_LPRF(23:0)
G_MEMORY(3:0)
G_MMC(7:0)
G_POWER(11:0)
G_RF_BB(31:0)
G_SIM(7:0)
G_SYS_CONN(11:0)

Rohm IR Module 1.8V





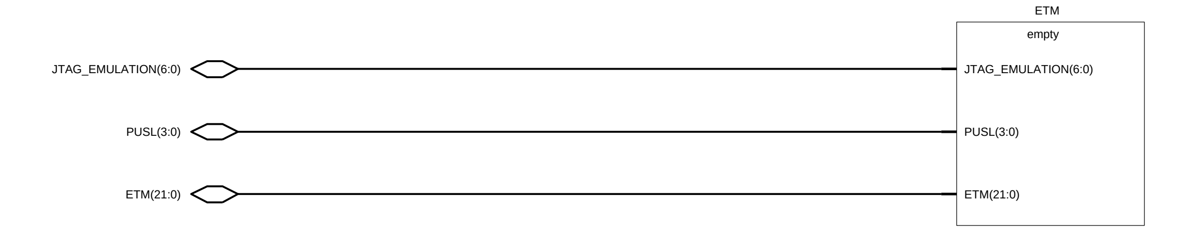
Test Points -based Ostrich Interface



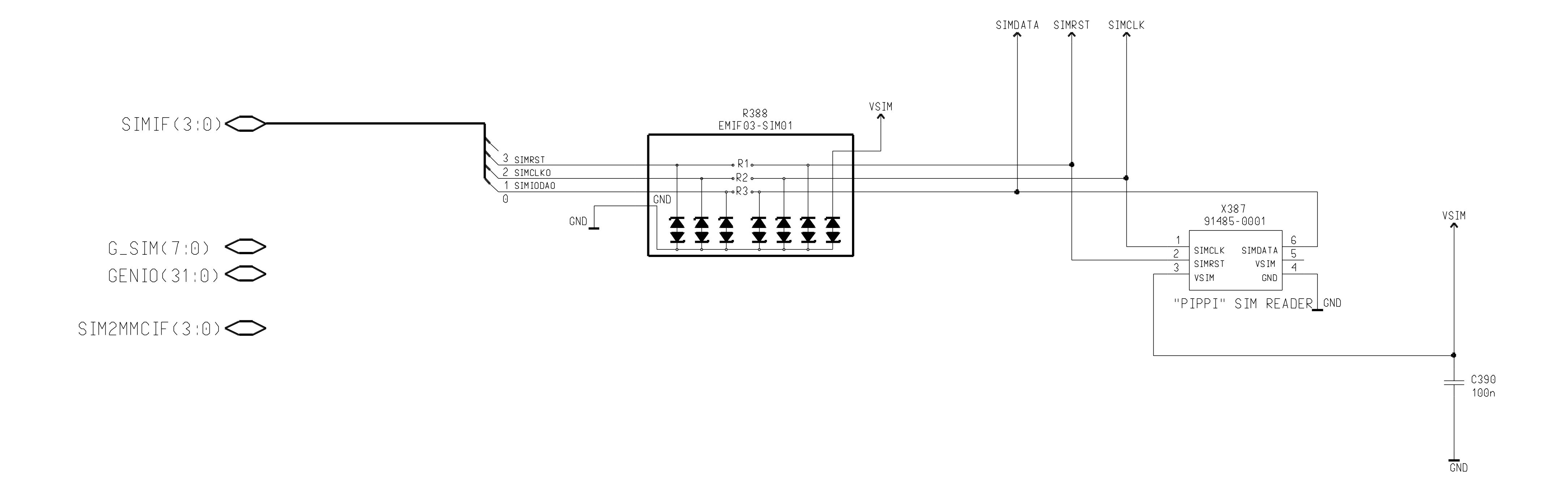
Test and Emulator Interface



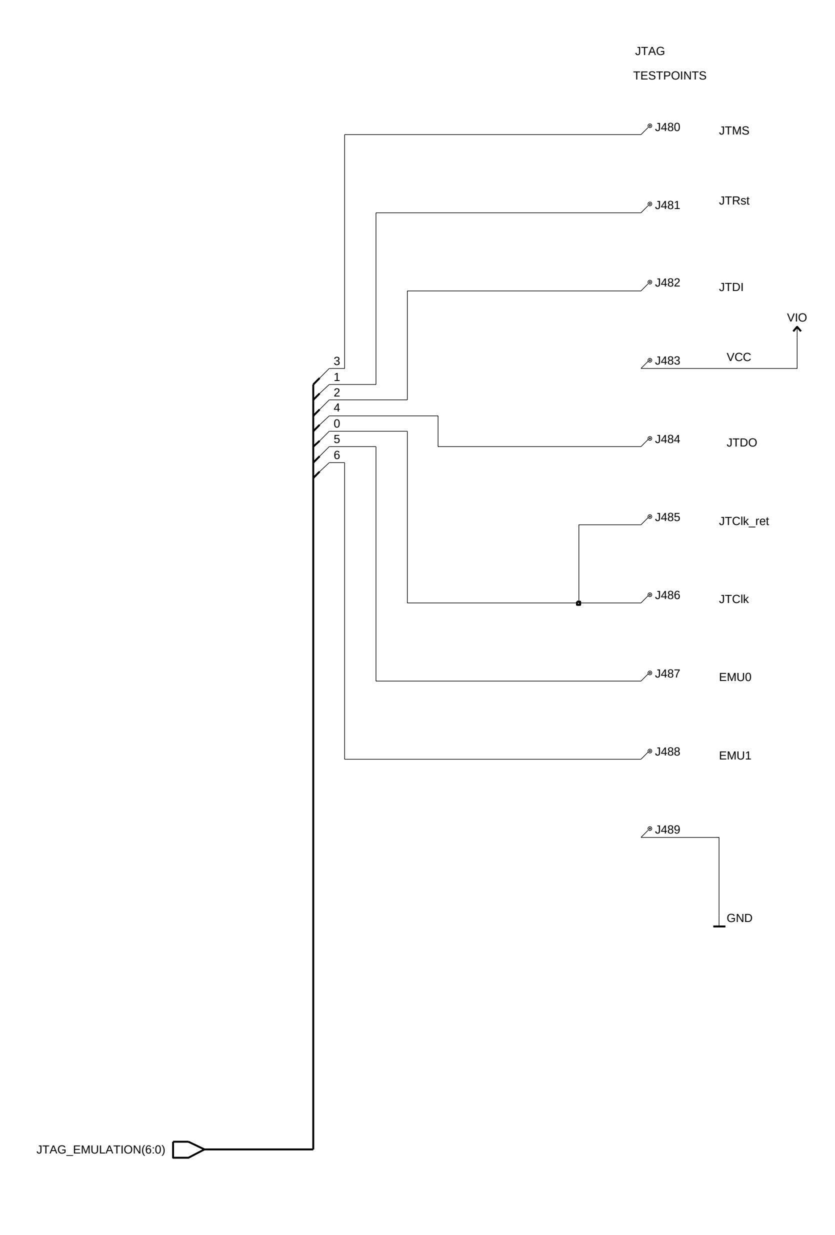




SIM Reader


SIMIF(3:0)
G_SIM(7:0)
GENIO(31:0)
SIM2MMCIF(3:0)
3 SIMRST
2 SIMCLKO
1 SIMIODAO
0
GND
R388
EMIF03-SIM01
R1
R2
R3
GND
VSIM
SIMDATA
SIMRST
SIMCLK
X387
91485-0001
1
2
3
SIMCLK
SIMRST
VSIM
SIMDATA
VSIM
GND
6
5
4
"PIPPI" SIM READER
GND
VSIM
C390
100n
GND

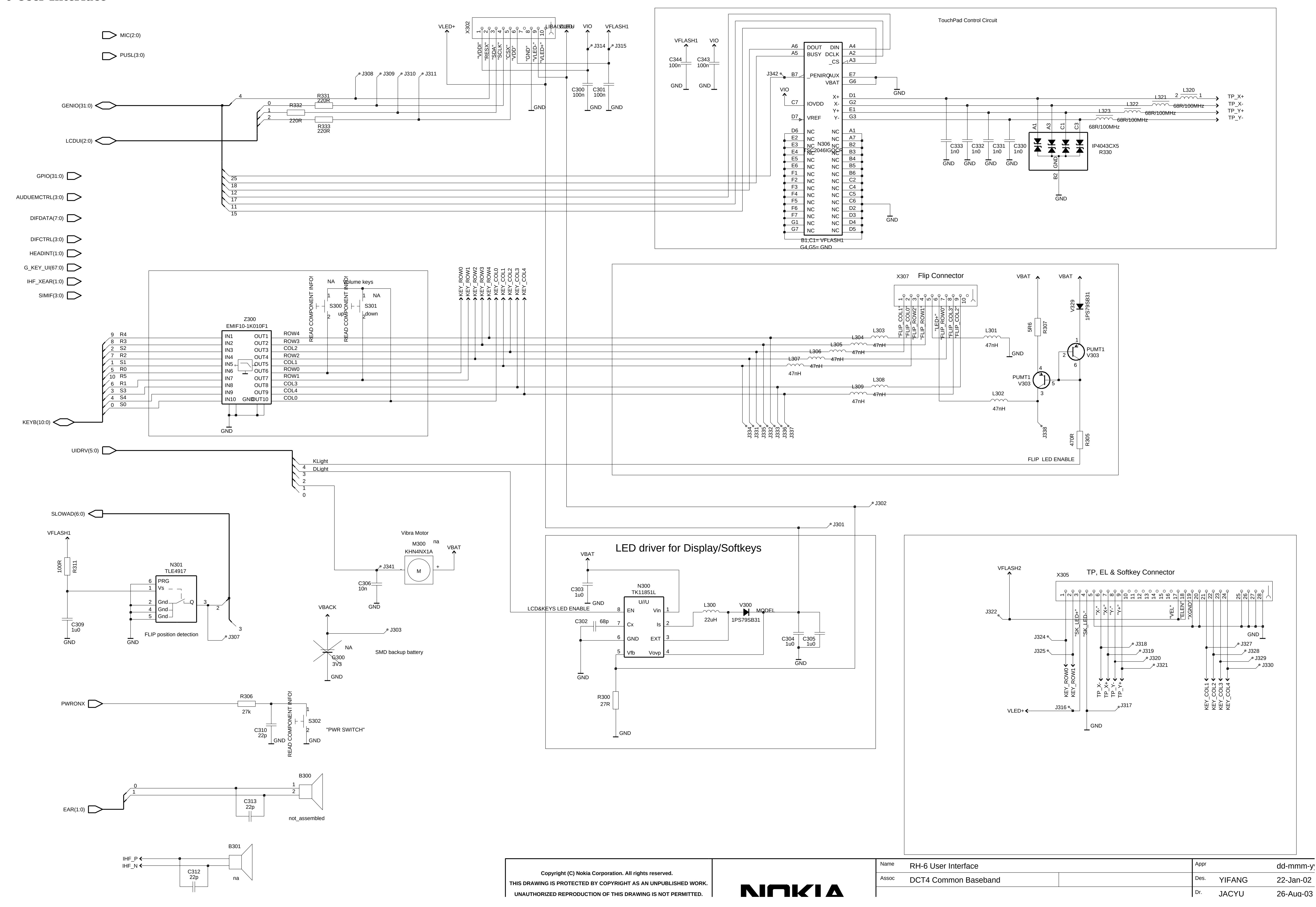
Test Points for JTAG Emulator



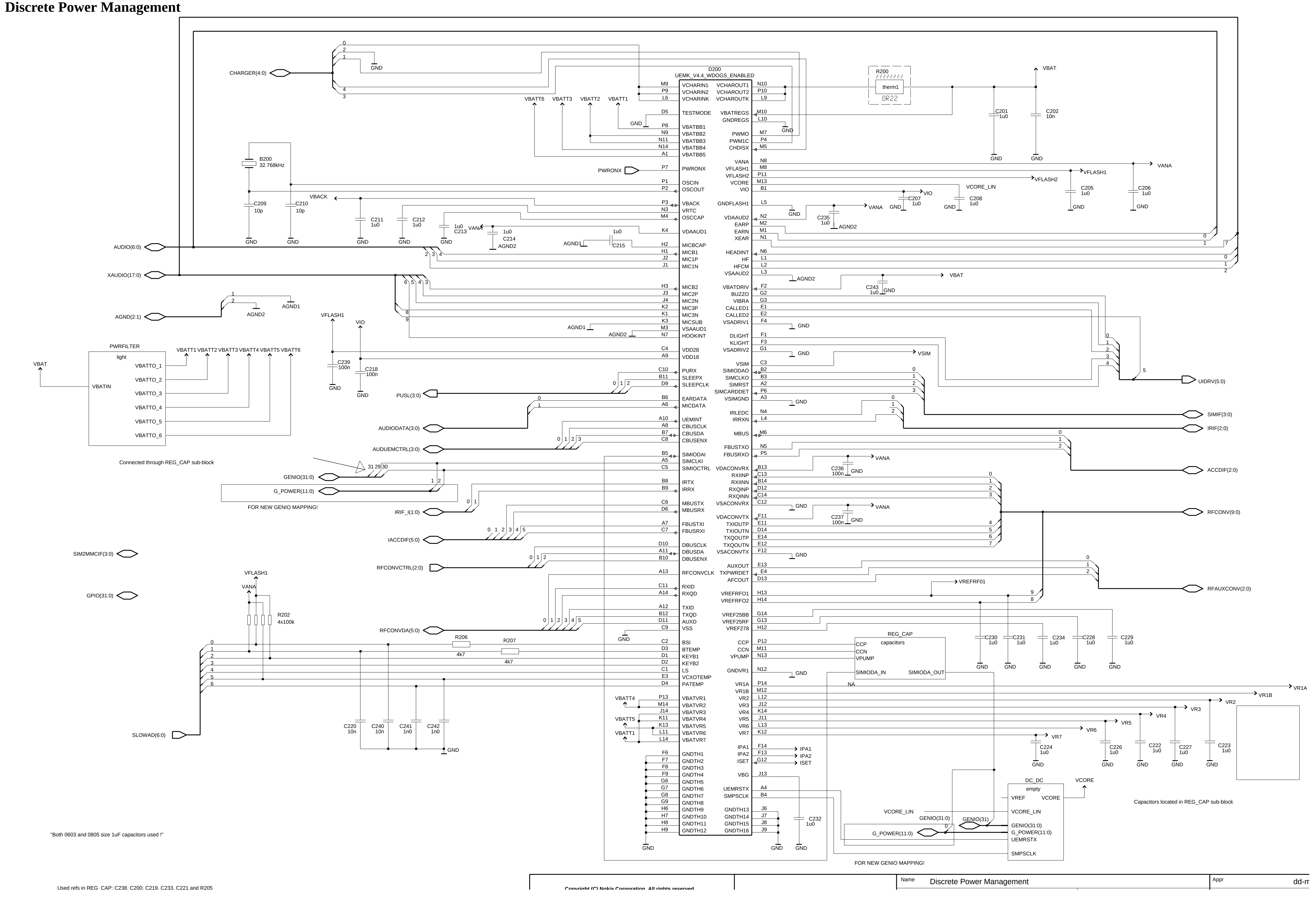
DC/DC Converter

VCORE_LIN
VCORE
GENIO(31:0)
G_POWER(11:0)
UEMRSTX
SMPSCLK

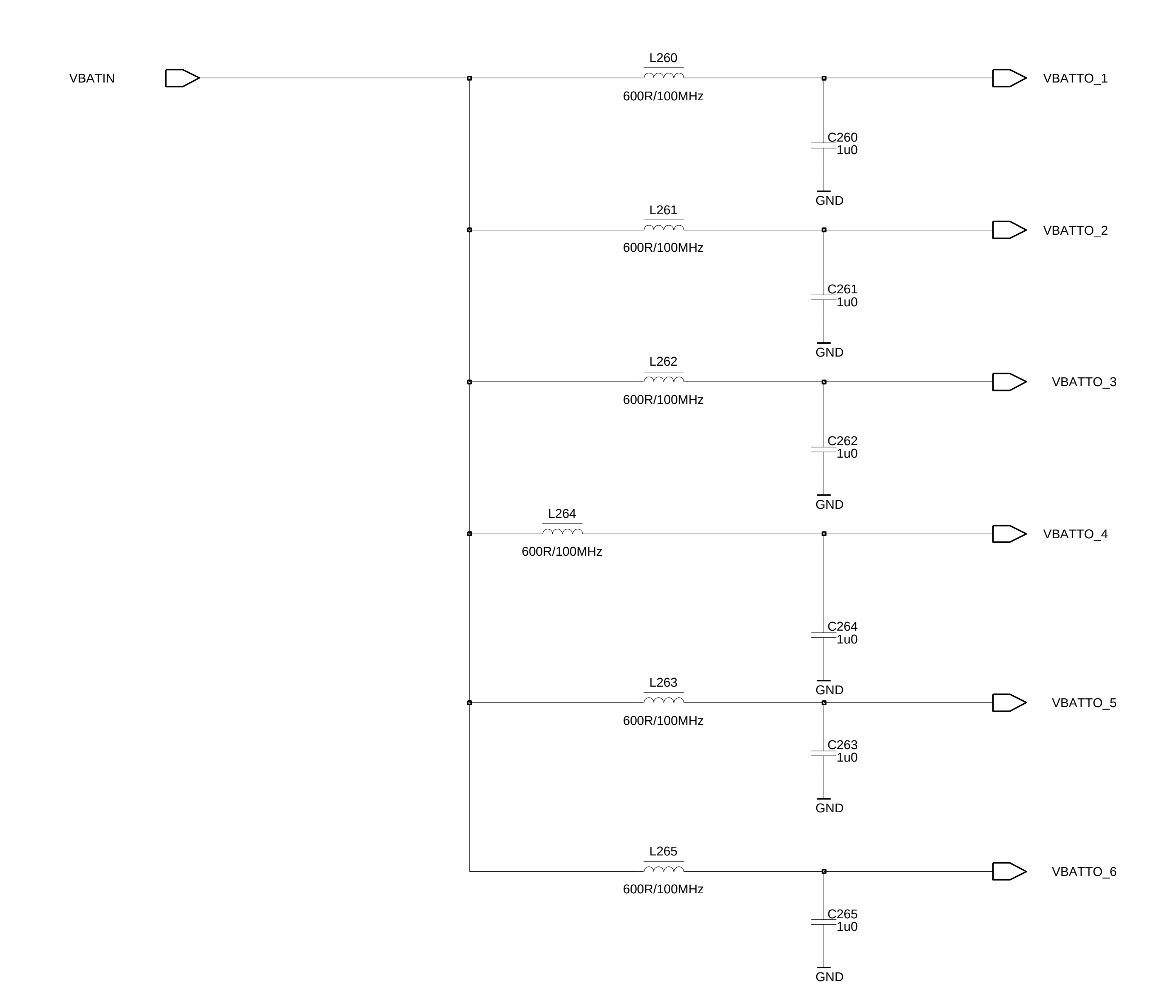
RH-6 User Interface



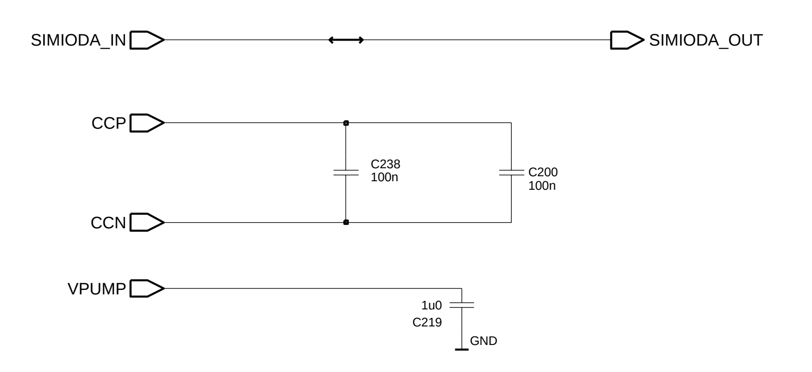
Discrete Power Management

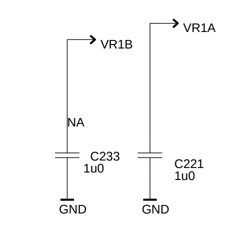


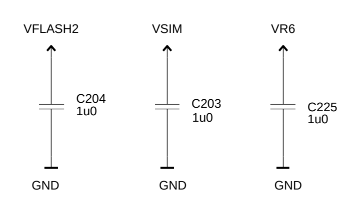
Light Filtering



Old Power Discrete Users

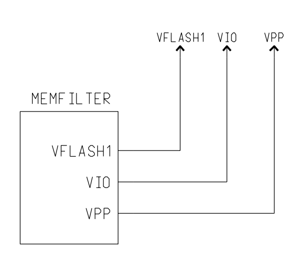






UPP 8M Implementation

Combo Memory 64 + 4 Mbit



MEMEXTENSION
empty
MEMADDA(15:0)
MEMAD(24:16)
MEMCONT(9:0)
GENIO(31:0)
G_MEMORY(3:0)
FLS2CSX

MEMWING
empty
GENIO(31:0)
G_MEMORY(3:0)
MEMAD(24:16)
MEMADDA(15:0)
FLS2CSX
MEMCONT(9:0)
FLSCSX

GENIO(31:0)

MEMAD(24:16)

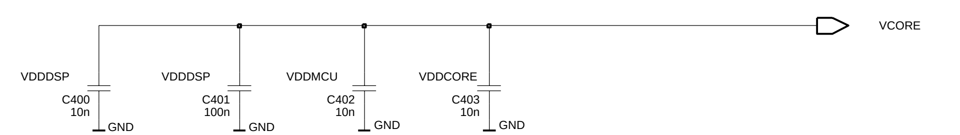
MEMCONT(9:0)

MEMADDA(15:0)

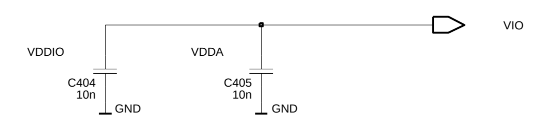
G_MEMORY(3:0)

D450
K5U6441BTM-TD90
FLASHM 4Mx16
SRAM 256kx16

Discrete Decoupling Capacitors for UPP



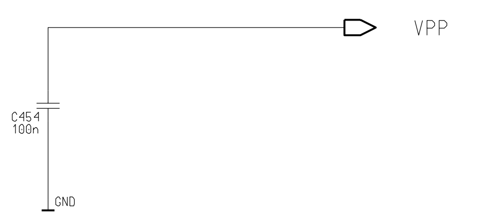
VCORE_LIN



Discrete Capacitors for Memory without VFlash 1



VFLASH1



Empty Wing Sheet

MEMADDA(15:0)

MEMAD(24:16)

GENIO(31:0)

G_MEMORY(3:0)

FLS2CSX

2 7

FLSCSX

MEMCONT(9:0)